Exhibit 1

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

In re INDYMAC MORTGAGE-BACKED SECURITIES LITIGATION

This Document Relates To:

ALL ACTIONS

Master Docket No. 09-Civ.-04583 (LAK) ECF CASE

REBUTTAL REPORT OF

PROFESSOR STEVEN P. FEINSTEIN, PH.D., CFA

January 13, 2014

TABLE OF CONTENTS

SCOPE OF PROJECT AND REPORT	I
CONCLUSIONS	2
ANALYSIS OF TOROUS 2013 REPORT	4
Dr. Torous Apparently Misunderstands Plaintiffs' Allegations	4
Dr. Torous Confuses Liberalized Underwriting Standards with Adherence to Underwriting Standards	_
The Materiality of Underwriting Standards	5
Dr. Torous Downplays Underwriting Standards as a Cause of the Mortgage Market Downtu	
Dr. Torous' Downplaying of the Role of Underwriting Standards Runs Contrary to Published Research	7
Dr. Torous' Dismissal of Underwriting Standards is Founded on Faulty Logic	. 11
Dr. Torous Ignores Similarities and Linkages Among the Certificates	. 12
Investor Damages Can Easily Be Computed In Accordance with the Statutes	. 13
Feasibility of Valuation, Attribution, and Negative Causation Analysis	. 13
Dr. Torous' Critique of My Damage Computation Methodology is Inconsistent with the Statutory Damage Formulas	. 17
Prices for the Certificates Can Be Obtained and/or Computed	. 18
Damages Are Computed Using Certificate Values	. 19
Proper Underwriting Offers Protection from Adverse Economic Events	. 20
LIMITING FACTORS AND OTHER ASSUMPTIONS	. 20

SCOPE OF PROJECT AND REPORT

- 1. In my report dated 30 August 2013 ("August 2013 Report" or "Feinstein August 2013 Report"), I concluded that:
 - i. The information about the underwriting process in the Offerings by IndyMac Bank was important and bears on the valuation of the Certificates.¹ A reasonable investor would consider this information important when making an investment decision about the Certificates.
 - ii. The allegedly untrue statements about the underwriting process would impact the value of the Certificates and influence investors' investment decisions.
 - iii. Damages suffered by the Plaintiffs and Class can be computed by applying the statutory arithmetic formulas, using investor trading records, data from trustee reports, as well as pricing models and data from available databases. The value of the Certificates would be impacted by the allegedly untrue statements about the underwriting process, albeit to varying extents. The attribution of damages among the investors is a straightforward computational matter.
- Subsequently, I was asked by Berman DeValerio, counsel for the Lead Plaintiffs, to
 consider and evaluate the arguments and conclusions in the Expert Report of Dr. Walter N.
 Torous dated 15 November 2013 ("Torous 2013 Report"), submitted by the Defendants in
 this matter, focusing on issues relating to the scope of my August 2013 Report.
- 3. This report presents my analysis, findings, and conclusions.
- 4. The documents I have reviewed and relied upon in the course of this engagement in addition to those cited in my previous reports are listed in Exhibit-1. My curriculum vitae is attached as Exhibit-2. Testimony I have provided since the submission of my August 2013 Report is presented in Exhibit-3.
- 5. My firm, Crowninshield Financial Research, Inc., is being compensated at a rate of \$675 per hour for my work. My compensation is neither contingent on my findings nor on the outcome of this matter.
- 6. As in my earlier reports, I excluded from consideration the dismissed allegations. That is, I did not rely on any assumptions regarding the allegations in the Second Amended

¹ Unless otherwise indicated, capitalized terms used herein have the meaning ascribed to them in my August 2013 Report.

Consolidated Class Action Complaint (ECF No. 337), filed 15 August 2011, concerning claims against the rating agency defendants, challenges to the statements made concerning appraisals and loan-to-value ratios, and allegations related to formerly dismissed defendants.

7. I understand that discovery is ongoing in this case. I reserve the right to make any necessary corrections and additions to my report, and to modify my opinion should any new or additional information become available.

CONCLUSIONS

- 8. The Torous 2013 Report provides no basis for revising my findings and conclusions.
- 9. Dr. Torous does not challenge my conclusion that information about underwriting is important to MBS valuation and investment decisions. In fact, in the Torous 2013 Report and subsequent deposition,²

 REDACTED

 The undisputed facts that information about underwriting standards is important, valuation relevant, and considered by investors making investment decisions are at the core of Plaintiffs' allegations and are the primary focus of my previous
- 10. Dr. Torous conflates misstatements about adherence to underwriting standards with widely publicized information about the loosening of underwriting standards. Plaintiffs allege that IndyMac failed to follow its stated underwriting processes and policies, not that some of IndyMac's stated underwriting guidelines were relaxed over time.

reports.

11. In his report, Dr. Torous argues that demonstrating falsity and calculating damages in this case will not be amenable to "common proof" because the Certificates are so complex and individually idiosyncratic that the valuation analysis necessary for damage computation and loss attribution would be burdensome if not intractable. However, Dr. Torous' thesis is belied by his own exposition. In the course of explaining the many factors that enter into the valuation of MBS, Dr. Torous acknowledges that the MBS industry is well developed, and the valuation models used by market participants to analyze and value MBS accommodate such factors.

² Deposition of Walter N. Torous, Ph.D., dated 12 December 2013 ("Torous 2013 Deposition").

- 12. Further, recent papers have documented how modeling and pricing MBS is a "straightforward" computational matter. Indeed, databases such as Intex are widely used by investment banks for valuing mortgage-backed securities. Services such as Intex and IDC accommodate many of the complexities of mortgage-backed securities cited in the Torous 2013 Report. Numerous accounting firms, consulting firms, and data vendors also provide MBS valuation and analysis services.
- 13. Defendants in this case create, market, trade, invest in, and serve as market makers for MBS. They value the securities for tax and financial reporting purposes, and to conduct scenario and sensitivity analysis for risk management. These functions utilize MBS valuation and analytic models.
- 14. The Torous 2013 Report samples selectively from the professional literature and has internal inconsistencies. For example, Dr. Torous argues that the market for MBS comprises a morass of unique idiosyncratic instruments whose valuations are dependent on a vast expanse of individually specific data and details. Simultaneously, and contradictorily, he argues that the MBS market is a unified whole whose value was collectively impacted by a single factor a decline in housing prices.³ That is, Dr. Torous contends that MBS defy generalization, especially with respect to valuation, however, he embraces generalization when attempting to deflect loss causation from the alleged abandonment of underwriting standards to a single alternative factor.
- 15. Dr. Torous' argument with respect to "negative causation" is flawed and internally inconsistent. He fails to prove that factors other than those related to Plaintiffs' allegations caused the declines in Certificate values. Yet, this unproved contention is the basis for his opinions that the Certificates were impacted by exogenous factors unrelated to the case allegations, and that an assessment of this impact is integral to the damage computation. Moreover, Dr. Torous simultaneously argues that MBS as a group are so similar as to generally have been impacted by the same exogenous factors, but also that MBS are so unique and idiosyncratic as to defy collective treatment.
- 16. Dr. Torous cites three working papers that contend the housing market decline, unrelated to changes in or application of underwriting standards, was the primary cause of mortgage security losses. However, Dr. Torous neglects to mention that the authors of these working

³ Torous 2013 Report, ¶¶ 10, and 72-78.

- papers state explicitly that their viewpoints are contrary to the generally accepted wisdom, which is supported by peer-reviewed academic studies, that underwriting standards played a significant role in the housing market decline.
- 17. In sum, Dr. Torous' report provides no basis for revising my conclusions. He offers several tangential theses, which lack support in the literature or analysis.

ANALYSIS OF TOROUS 2013 REPORT

Dr. Torous Apparently Misunderstands Plaintiffs' Allegations

- 18. As described in paragraph 40 of my August 2013 Report, Plaintiffs allege that "IndyMac did not adhere to its stated underwriting guidelines in originating or acquiring the mortgages that it bundled together in creating the Certificates."⁴
- 19. That information about the underwriting processes was important to investors in the Offerings and bears on the valuation of the Certificates, was a conclusion of my August 2013 Report.⁵ I concluded that information about the underwriting process is considered by reasonable investors making investment decisions regarding MBS and is an integral part of the valuation of these securities.
- 20. Dr. Torous does not dispute that statements about underwriting guidelines and loan characteristics bears on the valuation of the Certificates. Nor does Dr. Torous opine one way or the other whether Plaintiffs' allegations are true, that underwriting standards were not adhered to.

21.	Rather, in his recent report, Dr. Torous focuses on how Plaintiffs might attempt to prove			
	their allegations.	REDACTED		
		Dr. Torous' findings with respect to liability and how Plaintiffs may or		
	may not be able to	establish it are outside the purview of a finance expert.		

⁴ Second Amended Consolidated Complaint, filed 15 August 2011, p. 39.

⁵ Feinstein August 2013 Report, paragraph 4.

<u>Dr. Torous Confuses Liberalized Underwriting Standards with Adherence to Underwriting</u> Standards

22. Further, Dr. Torous conflates information about loosened underwriting standards with information about adherence to underwriting standards in Appendix C and Exhibits 1-2 of his report.

"Among other things, relaxed underwriting standards, aggressive lending practices, and the expansion of 'nontraditional' loan products were widely reported. At the same time, there were reports of increased borrower fraud."

Torous 2013 Report, p. C-1 (internal citation omitted).

23. That IndyMac offered low documentation loan programs was disclosed and well known. However, IndyMac represented that for these programs more stringent underwriting standards were purportedly applied to compensate for the reduced documentation.

"In general, documentation types that provide for less than full documentation of employment, income and liquid assets require higher credit quality and have lower loan-to-value ratios and loan amount limits." Prospectus Supplement, IndyMac MBS, Inc. 'Depositor', IndyMac INDX Mortgage Loan Trust 2006-AR35, dated 29 November 2006, p. S-66.

- 24. The main allegation in this case is that IndyMac's underwriting guidelines, which included provisions that were supposed to compensate for any liberalized documentation requirements, were not adhered to.
- 25. Evident in his relating the news reportage of liberalized loan programs in his Appendix C, Dr. Torous seems to confuse liberalized lending standards with the allegations that the stated guidelines, even the liberalized programs, were not being followed.

The Materiality of Underwriting Standards

26. As detailed in paragraphs 47-65 of my August 2013 Report, information about the underwriting guidelines matters greatly to investors.

"According to fundamental economic principles, information about underwriting guidelines determines investors' confidence in the credit quality of the underlying mortgage pool, their assessment of default probability, and in turn their cash flow forecasts. Expected cash flow

(appropriately weighted by the probability of default) is the basis of valuation. Consequently, information about adherence to underwriting guidelines is important to investors as they value mortgage-backed certificates and make investment decisions."

Feinstein August 2013 Report, paragraph 64.

- 27. Dr. Torous does not dispute this overarching conclusion from my August 2013 Report. In fact, Dr. Torous goes to great lengths to highlight the differences in the loan underwriting standards. Dr. Torous acknowledges in his review that the loan characteristics purportedly screened by IndyMac in the underwriting process were indeed material information, confirming my conclusion that underwriting matters.⁷
- 28. That the majority of the Torous 2013 Report is focused on why underwriting standards matter to the valuation and performance of MBS, demonstrates the importance of underwriting guidelines. Moreover, in Section V (C) of his report, Dr. Torous describes important characteristics of each loan and loan group, which is precisely among the data purportedly addressed, verified, and screened by IndyMac during the underwriting process, including: borrower income, vintage, occupancy, FICO score, loan-to-value ratio, lien position, loan purpose, and principal balance.
- 29. Dr. Torous not only implicitly acknowledges that underwriting guidelines and the specific data addressed in the underwriting process are important characteristics of mortgage loans and loan groups, he also describes how these characteristics impact the value of MBS generally.

"[I]nvestors purchasing certificates backed by mortgages associated with relatively low FICO scores would have expected higher defaults on the underlying loans than when purchasing certificates backed by borrowers with relatively high FICO scores, all else equal."

Torous 2013 Report, ¶61.

"Similarly, with respect to lien position, mortgage pools with larger percentages of second-lien loans tend to have greater borrower realized losses."

Ibid.

⁷ For example, see Torous 2013 Report, paragraphs 19-35.

⁸ *Ibid.*, Section V (B-C).

"Thus, the performance of each offering (and loan group, as applicable) is dependent upon the value of the underlying mortgaged properties; when home prices change in certain areas, certificate performance may also change depending upon the geographical mix of the underlying collateral." *Ibid.*, ¶62.

30. As the above quotes show, Dr. Torous and I agree that information describing the characteristics of the mortgage pools underlying the Certificates, which is purportedly verified during the underwriting process, is important information investors would consider when making investment decisions.

<u>Dr. Torous Downplays Underwriting Standards as a Cause of the Mortgage Market</u> <u>Downturn</u>

<u>Dr. Torous' Downplaying of the Role of Underwriting Standards Runs Contrary to Published Research</u>

- 31. While arguing that loss attribution analysis is burdensome or intractable, Dr. Torous nonetheless argues that MBS losses were not caused by abandonment of underwriting standards, but rather were caused primarily by macroeconomic conditions. That is, Dr. Torous essentially draws a negative causation and attribution conclusion without conducting any empirical analysis.
- 32. Dr. Torous represents that his view is widely held:

"Real estate economists have attributed the downturn in the mortgage market predominantly to the deterioration in the macroeconomic environment, and more specifically to the unprecedented fall in home prices."

Torous 2013 Report, paragraph 74.

33. To support his case, Dr. Torous cites working papers by Bhardwaj and Sengupta [2009],⁹ and by Gerardi, *et al.*, [2009],¹⁰ both of which are from Federal Reserve Bank working paper collections. Dr. Torous represents the conclusion of Gerardi, *et al.* as follows:

⁹ "Where's the Smoking Gun? A Study of Underwriting Standards for US Subprime Mortgages," by Geetesh Bhardwaj and Rajdeep Sengupta, Federal Reserve Bank of St. Louis Working Paper Series, Working Paper 2008-036C, October 2009.

¹⁰ "Decomposing the Foreclosure Crisis: House Price Depreciation Versus Bad Underwriting," by Kristopher Gerardi, Adam Hale Shapiro, and Paul S. Willen, Federal Reserve Bank of Atlanta Working Paper Series, September 2009.

"For example, an empirical study by economists at the Federal Reserve Bank in 2009 concluded that the dominant driver of recent residential foreclosures was the macroeconomy – dramatic declines in home prices – rather than the underwriting standards applied to loans."

Torous 2013 Report, paragraph 75.

34. Importantly, however, Gerardi, *et al.* [2009] affirm the important role played by underwriting standards in causing the mortgage market downturn:

"There are two competing theories to explain the explosion of foreclosures in the United States in 2007–2009. The first focuses almost entirely on underwriting standards, and attributes the crisis to loans that borrowers had trouble repaying, either because they had bad credit and little income to begin with, or because the loans were unrealistically generous at the time of origination and later became unaffordable. There is persuasive *prima facie* evidence that is consistent with this theory."

"Decomposing the Foreclosure Crisis: House Price Depreciation Versus Bad Underwriting," by Kristopher Gerardi, Adam Hale Shapiro, and Paul S. Willen, Federal Reserve Bank of Atlanta Working Paper Series, September 2009, p. 1 (italics in original).

"We argue that relaxed underwriting standards did severely aggravate the crisis by creating a class of homeowners who were particularly vulnerable to the decline in prices." *Ibid.*, abstract.

35. The second paper that Dr. Torous cites states explicitly that weakening of underwriting standards is the "dominant" explanation for the mortgage market downturn:

"The dominant explanation for the meltdown in the U.S. subprime mortgage market is that lending standards dramatically weakened after 2004."

"Where's the Smoking Gun? A Study of Underwriting Standards for US Subprime Mortgages," by Geetesh Bhardwaj and Rajdeep Sengupta, Federal Reserve Bank of St. Louis Working Paper Series, Working Paper 2008-036C, October 2009, p. 1.

"Conventional wisdom has argued that deterioration in underwriting standards was central to the collapse of the market for subprime mortgages." *Ibid.*, p. 2.

36. The Bhardwaj and Sengupta [2009] paper cites numerous published articles that present and support the "conventional wisdom" that underwriting standards were culpable. An example of one of these articles is "Understanding the Subprime Mortgage Crisis" by Yuliya Demyanyk and Otto Van Hemert that was published in the leading peer-reviewed journal, *The Review of Financial Studies*. Demyanyk and Hemert claim that the quality of loans deteriorated and this was a reason for the subprime mortgage crisis.

"The goal of this paper is to answer the question: What do the data tell us about the possible causes of the crisis? To this end we use a loan-level database containing information on about half of all subprime mortgages in the United States that originated between 2001 and 2007.

. . .

Second, we uncover a downward trend in loan quality, determined as loan performance adjusted for differences in loan and borrower characteristics and macroeconomic circumstances. We further show that there was a deterioration of lending standards and a decrease in the subprime-prime mortgage rate spread during the 2001-2007 period."

"Understanding the Subprime Mortgage Crisis," by Yuliya Demyanyk and Otto Van Hemert, *Review of Financial Studies*, (RFS Advance Access, published 4 May 2009), p. 1 and p. 5.

37. Bhardwaj and Sengupta [2009] acknowledge that their explanation, which Dr. Torous espouses, is a contrarian view. Bhardwaj and Sengupta quote from a report written by the President's Working Group on Financial Markets, which cites underwriting standards as the primary cause of the housing/credit crisis:

"The turmoil in financial markets was triggered by a dramatic weakening of underwriting standards for U.S. subprime mortgages, beginning in late 2004, and extending into early 2007."

"Policy Statement on Financial Market Developments," by the President's Working Group on Financial Markets, 2008, p. 2; also cited in Bhardwaj and Sengupta [2009], p. 2.

38. Dr. Torous attempts to bolster his case by citing another discussion paper, one authored by Foote, *et al.* [2012].¹¹ Foote, *et al.* found that:

¹¹ "Why Did So Many People Make So Many Ex Post Bad Decisions? The Causes of the Foreclosure Crisis," by Christopher L. Foote, Kristopher S. Gerardi, and Paul S. Willen, Federal Reserve Bank of Boston Public Policy Discussion Papers, 20 July 2012.

"the contemporary evidence on what investors believed about prices suggests that their widespread optimism encouraged them to purchase subprime securities, despite the well-understood risks involved."

"Why Did So Many People Make So Many Ex Post Bad Decisions? The Causes of the Foreclosure Crisis," by Christopher L. Foote, Kristopher S. Gerardi, and Paul S. Willen, Federal Reserve Bank of Boston Public Policy Discussion Papers, 20 July 2012, p. 18.

39. Based on his review of Foote, *et al.*, Dr. Torous opines that:

"This being the case, mortgages written to looser disclosed underwriting standards were understood to be riskier and more vulnerable to macroeconomic shocks. While many investors did not expect the financial crisis to be as deep and as prolonged as it proved to be, the mortgages backing many certificates proved predictably vulnerable to widespread house price declines."

Torous 2013 Report, ¶ 76.

. It is important to note first and foremost that *Foote*

40. It is important to note first and foremost that *Foote, et al.* state that their thesis is a contrarian view at odds with "the popular story that the crisis resulted from financial industry insiders deceiving uninformed mortgage borrowers and investors." ¹²

- 41. Second, the *Foote, et al.* article does not absolve the alleged abandonment of underwriting standards as a cause of the mortgage crisis and decline in MBS values. If, as the authors and Dr. Torous note, these securities were riskier and more vulnerable to macroeconomic shocks, then truthful and accurate information about the underwriting standards was all the more important to investors.
- 42. In fact, Foote, et al. [2012] emphasize the importance of rigorous loan data verification:

"In short, higher house price expectations rationalize the decisions of borrowers, investors, and intermediaries – their embrace of high leverage when purchasing homes or funding mortgage investments, their failure to require rigorous documentation of income or assets before making loans, and their extension of credit to borrowers with histories of not repaying debt."

Why Did So Many People Make So Many Ex Post Bad Decisions? The Causes of the Foreclosure Crisis," by Christopher L. Foote, Kristopher S. Gerardi, and Paul S. Willen, Federal Reserve Bank of Boston Public Policy Discussion Papers, 20 July 2012, p. 2.

¹² *Ibid*.

43. Lastly, published academic literature clearly states that faulty underwriting does cause a higher default rate among otherwise-similar loans.

"Strikingly, we find that although [FICO score] 620+ loans should be of slightly better credit quality than those at 620-, low documentation loans that are originated above the credit threshold tend to default within two years of origination at a rate 10%–25% higher than the mean default rate of 5% (which amounts to roughly a 0.5%–1% increase in delinquencies). As this result is conditional on observable loan and borrower characteristics, the only remaining difference between the loans around the threshold is the increased ease of securitization. Therefore, the greater default probability of loans above the credit threshold must be due to a reduction in screening by lenders."

"Did Securitization Lead To Lax Screening? Evidence From Subprime Loans," by Benjamin J. Keys, Tanmoy Mukherjee, Amit Seru, and Vikrant Vig, *Quarterly Journal of Economics*, 2010, p. 310.

44. Thus, the conventional view published in peer reviewed journals and in reports from government regulators is different from what Dr. Torous presents. The mainstream view is that underwriting standards mattered.

Dr. Torous' Dismissal of Underwriting Standards is Founded on Faulty Logic

45. In paragraphs 74-75 of his report, Dr. Torous seems to argue that the abandonment of underwriting standards was immaterial, because investor losses would not have occurred without the economy-wide decline in housing prices:

"The study found that the decline in home prices was a primary driver of foreclosures, and that 'lowered underwriting standards' would not have similarly increased the foreclosure rate without a decline in home prices." **Torous 2013 Report**, ¶ 75.

46. There are several problems with Dr. Torous' argument. First, as noted above, the view that the decline in housing prices was the primary driver of MBS losses is not the dominant view and has not been proved. Second, Dr. Torous is assuming there is no relationship between the allegedly abandoned underwriting standards and the real estate bubble and subsequent collapse. Dr. Torous performs no supporting analysis and does not establish that housing prices were an exogenous factor independent of the alleged abandonment of underwriting standards. Underwriting standards have been implicated as a cause of the real

- estate market turmoil. Third, even if housing prices contributed to MBS losses, this does not prove that underwriting standards did not.
- 47. Dr. Torous' argument, that but for the decline in housing prices, the abandonment of underwriting standards would not have mattered much defies logic. It is akin to arguing that defective seatbelts and airbags do not impair the value of an automobile except in the event of a collision.
- 48. The fact of the matter is that protective devices such as seatbelts, airbags, and mortgage underwriting standards, add value prior to any emergencies because they are expected to offer protection in the event of an emergency. Just as a car without seatbelts and airbags is worth less than an identical car with such equipment, an MBS created without proper underwriting is worth less than one with the added safety provided by underwriting standards. Certainly, the damage the safety features were designed to prevent or minimize becomes apparent only in the event of the calamitous event, but such an adverse realization proves why the safety features were necessary and valuable in the first place.

Dr. Torous Ignores Similarities and Linkages Among the Certificates

- 49. Dr. Torous seeks to emphasize differences between the Certificates but ignores their similarities, and in particular disregards the linkages from cross-collateralization.
- 50. As described in paragraph 70 of my August 2013 Report, cross-collateralization links many of the MBS certificates at issue in this case. Cross-collateralization is the provision that allows for cash flows from one loan group to be distributed under certain circumstances to the certificates within the same offering associated with other loan groups. Of the 42 Additional Offerings, 20 were backed by only one loan group, and another 20 had multiple loan groups linked through cross-collateralization provisions.
- 51. Dr. Torous contends that five of the Offerings had no cross-collateralization across "aggregate loan groups" ("loan groups that are comprised of one or more individual loan groups").¹⁴

¹³ For the Original Offerings see paragraph 41 of my April Rebuttal Report.

¹⁴ Torous 2013 Report, ¶ 49.

"For example, the Prospectus Supplements for INDX 2006-AR33, INDX 2007-ARS, RAST 2007-A8, INDA 2007-AR7, and INDX 2007-AR21IP all indicate that no cross-collateralization is permitted across aggregate loan groups."

Torous 2013 Report, p. 38, footnote 124.

52. For the five offerings identified by Dr. Torous, all five permitted cross-collateralization within aggregate loan groups, but did not permit cross-collateralization across aggregate loan groups. Dr. Torous cannot dispute the fact that of the 51 Offerings at issue, 44 offerings are composed of pools backed by either one loan group or multiple loan groups where cross-collateralization is permitted across the loan groups.

Investor Damages Can Easily Be Computed In Accordance with the Statutes

Feasibility of Valuation, Attribution, and Negative Causation Analysis

- 53. Dr. Torous argues that performing negative causation analysis is virtually intractable, due to the individual characteristics of each certificate and the variety of valuation factors that must be considered.
 - "... individualized inquiries of damages and loss causation will be required for individual certificates."

Torous 2013 Report, ¶ 78.

"Moreover, a 'straightforward' damages method would not account for the impact of adverse macroeconomic events on different certificates, which must be assessed separately based on the different collateral backing the certificates and characteristics of the certificates themselves." *Ibid.*

REDACTED

54. What Dr. Torous overlooks in this argument is that the MBS market is mature and the science of MBS valuation is advanced. Models and algorithms exist that accommodate and account for the variety of MBS characteristics and valuation factors Dr. Torous mentions.

The various factors Dr. Torous cites as valuation relevant are addressed in the academic

- and practitioner literature, and the science has developed to efficiently deal with them. These models and algorithms permit one to control for various factors to assess what caused the losses.
- 55. The very fact that Defendants were able to conduct the valuations necessary to create, market, sell, and trade, the MBS certificates in the first place proves that the differentiating characteristics of the MBS pose no insurmountable valuation problem.
- 56. In fact, the Foote, *et al.* paper that Dr. Torous relied on describes the modeling of MBS prices as "straightforward."

"Investors had access not only to important data, but also to tools that allowed them to use these data to price securities. The MBS and CDOs that contained the mortgages (or the mortgage risk) appeared complex on the surface, **but they were in fact straightforward to model**. Most investors used a program called Intex that coded all of the rules from a prospectus for the allocation of cash flows to different tranches of a deal. To forecast the performance of a deal, an investor would input into Intex a scenario for the performance of the underlying loans. Intex would then deliver cash flows, taking into account all of the complex features of the deal, including so-called overcollateralization accounts and the treatment of interest income earned on loans that were paid off in the middle of a month."

"Why Did So Many People Make So Many Ex Post Bad Decisions? The Causes of the Foreclosure Crisis," by Christopher L. Foote, Kristopher S. Gerardi, and Paul S. Willen, Federal Reserve Bank of Boston Public Policy Discussion Papers, 20 July 2012, pp. 15-16 (emphasis added).

57. Intex is a valuation tool used by investment banks for reporting and trading purposes.¹⁵ According to Intex, their models cover nearly every public deal and numerous private deals:

"Intex supports four major global asset sectors: RMBS, ABS, CMBS and CDO, as well as CLN and Covered Bonds. Within each sector are certain sub-sectors, for example the RMBS sector includes agency- and whole loan-backed CMO/REMICs, the ABS sector includes home equity, manufactured housing, credit card, automobile, equipment, student loan and other related sectors, and the CDO sector includes cash and synthetic

¹⁵ "Collateral Damage: Sizing and Assessing the Subprime CDO Crisis," by Larry Cordell, Yilin Huang, and Meredith Williams, Federal Reserve Bank of Philadelphia, May 2012.

CLOs, asset-backed CDOs, CDOs-squared, CRE CDOs, trust-preferred CDOs and other types. Intex has modeled nearly every public deal and numerous privately issued deals in these four sectors, far and away the most comprehensive deal library of its kind in existence today."¹⁶

58. Pricing is routinely performed by investment banks underwriting MBS, by institutions buying them, and by firms for reporting and tax purposes. Many of the institutions named as Defendants in this case, or related entities, serve as market makers for MBS, and therefore continually evaluate the wide variety of MBS circulating. They have trading desks whose profits depend on continuous and careful valuation of MBS. The trading desks are well equipped to value MBS. Banks that invest in MBS are encouraged to stress test their MBS holdings, meaning they value them under a range of economic assumptions. A 1998 policy statement issued by the Federal Financial Institutions Examination Council (an interagency body of the U.S. government, comprising among other agencies, the Federal Reserve and the Office of the Comptroller of the Currency) recommended ongoing valuation and stress testing of MBS investments:¹⁷

"The agencies continue to believe that the stress testing of MDP [residential mortgage derivative products] investments, as well as other investments, has significant value for risk management purposes. Institutions should employ valuation methodologies that take into account all of the risk elements necessary to price these investments. The 1998 Statement states that the agencies believe, as a matter of sound practice, institutions should know the value and price sensitivity of their investments prior to purchase and on an ongoing basis."
"Supervisory Policy Statement on Investment Securities and End-User Derivatives Activities," Federal Financial Institutions Examination Council, 25 May 1998.

59. Defendants created, marketed, invested in, and traded the MBS instruments at issue in this case. They certainly possess or already have access to the models for pricing them. An industry that created \$9 trillion of MBS, which actively manages CDOs, which continues to

¹⁶ Obtained from http://www.intex.com/main/solutions.php on 7 January 2013.

¹⁷ In a January 2010 advisory issued by the same offices, again recommended stress testing of bank portfolios and notes that vendor services were available to assist smaller institutions with the process ("Advisory on Interest Rate Risk Management," the Board of Governors of the Federal Reserve System (FRB), the Federal Deposit Insurance Corporation (FDIC), the National Credit Union Administration (NCUA), the Office of the Comptroller of the Currency (OCC), the Office of Thrift Supervision (OTS), and the Federal Financial Institutions Examination Council (FFIEC) State Liaison Committee, 6 January 2010).

- issue over a trillion dollars of new MBS annually, must know how to price and value the instruments. As the federal regulators advised depository institutions, should an institution need assistance, vendor-supplied models are also available.
- 60. In his published work, Dr. Torous acknowledges that considerable industry resources have been devoted to developing MBS valuation models, and with great success:

"Given their importance, practitioners have expended considerable resources to organize prepayment data and develop models to value mortgage-backed securities."

"Valuing Stripped Mortgage-Backed Securities," by Eduardo S. Schwartz and Walter N. Torous, *Housing Finance Review*, 1989, p. 241.

"Mortgage backed securities are interest rate contingent securities and, as such, can be valued using fixed income valuation techniques. Rather than review these techniques, we concentrate only on issues unique to mortgage backed securities, in particular, the valuation of effects of prepayment behavior."

"Mortgage Backed Securities," by Walter N. Torous, chapter 11 in *Handbooks in OR & MS*, Volume 9, edited by Robert Jarrow, et al., 1995, p. 352.

- 61. The chapter from which the second excerpt above was taken continues with an exposition of the factor models and Monte Carlo simulations that serve as a method that can be used to value MBS.
- 62. Services such as IDC and Intex provide pricing and valuation models, respectively, for the MBS at issue in this case. These services accommodate deal structure and individual certificate characteristics. Defendants too have the wherewithal to price and perform valuation analyses on the MBS at issue in this case. This capability most certainly exists, as the exercise was necessary in the process of creating, marketing, selling, and trading the securities originally. Consequently, Dr. Torous' contention that computing damages for the Offerings would be too burdensome or even intractable is false.
- 63. No characteristics of any Certificate depend on facts specific to any class member. The valuation analysis would not be done on an investor-by-investor basis. Similarly, any analysis of the impact of exogenous factors need not be done on an investor-by-investor basis.

<u>Dr. Torous' Critique of My Damage Computation Methodology is Inconsistent with the Statutory Damage Formulas</u>

- 64. Dr. Torous criticizes my damage computation because it does not disaggregate what he contends are confounding factors. These factors include, *inter alia*, default risk, exogenous economic factors, and coverage by third-party insurance.¹⁸
- 65. Dr. Torous' criticism is off base because it disregards the Section 11 and Section 12 statutory formulas for damages. The damage computations according to Section 11 and Section 12 of the Securities Act of 1933 are described in paragraphs 81 and 82 of my August 2013 Report, respectively. The formulas do not require a negative causation or attribution analysis, as Dr. Torous contends. Consequently, my proposed damage computation was fully compliant with the statutory prescriptions.
- 66. Dr. Torous fails to provide any valuation framework of his own. As the relevant statute clearly shows, it is incumbent on Dr. Torous and/or Defendants to prove that the certificates were affected by exogenous factors other than misrepresentations made in the Offering documents.

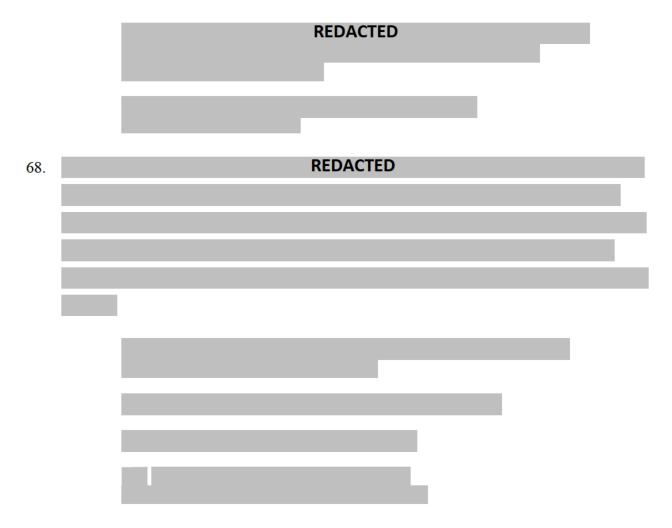
"Notwithstanding the provisions of subsection (a) no person, other than the issuer, shall be liable as provided therein who shall sustain the burden of proof.

Provided, That if the defendant proves that any portion or all of such damages represents other than the depreciation in value of such security resulting from such part of the registration statement, with respect to which his liability is asserted, not being true or omitting to state a material fact required to be stated therein or necessary to make the statements therein not misleading, such portion of or all such damages shall not be recoverable."

Section 11 of the Securities and Exchange Act of 1933.

67.		REDACTED		

 $^{^{18}}$ See, for example Torous 2013 Report, $\P\P$ 58 & 78.



69. Dr. Torous' failure to perform any analysis of the purportedly exogenous factors he contends caused losses, renders his criticisms baseless and conclusions speculative.

Prices for the Certificates Can Be Obtained and/or Computed

- Dr. Torous argues that damages cannot be computed because prices for certain of the atissue certificates are not available from IDC as of 14 May 2009.
- 71. For certificates without IDC prices on 14 May 2009, one could obtain prices from other valuation services such as Intex. Using Intex, it is possible to model the cash flows for each tranche of an offering taking into account the different characteristics of each offering and macroeconomic scenarios cited by Dr. Torous. In fact, according to a study cited by

¹⁹ See, for example, Torous 2013 Report, ¶68.

Foote *et al.* [2012], Intex allowed accurately pricing of certificates in real time during the crisis.²⁰

"Cordell, Huang, and Williams (2011) shows that using Intex, one could accurately measure the losses and value of ABS CDOs in real time throughout the crisis."

"Why Did So Many People Make So Many Ex Post Bad Decisions? The Causes of the Foreclosure Crisis," by Christopher L. Foote, Kristopher S. Gerardi, and Paul S. Willen, Federal Reserve Bank of Boston Public Policy Discussion Papers, 20 July 2012, p. 16.

72. Moreover, as noted above and in my earlier reports, models and pricing services are available to value these securities.

<u>Damages Are Computed Using Certificate Values</u>

- 73. As described in paragraphs 84-88 of my August 2013 Report, damages can be computed using certificate values from services such as IDC, Bloomberg, Intex, or models and algorithms used by investment banks to create, market, sell, and trade the certificates.
- 74. Dr. Torous and I agree that value determinations would need to be made for the Certificates.

"[V]alue determinations would need to be made for hundreds of certificates using models specific to each loan group or offering, and in many cases, each certificate."

Torous 2013 Report, ¶ 10.

75. The methodology for computing damages will be the same for all class investors, even though certain Certificate characteristics may vary. For investors who purchased securities supported by the same loan group, the cash flow valuation inputs for all of those certificates would be the same and derived from reported loan group data in the Offering Documents and trustee reports.

²⁰ "Collateral Damage: Sizing and Assessing the Subprime CDO Crisis," by Larry Cordell, Yilin Huang, and Meredith Williams, Federal Reserve Bank of Philadelphia, May 2012.

Proper Underwriting Offers Protection from Adverse Economic Events

76. It is a generally accepted principle that the purposes of underwriting include insulating the performance of the loan pool from adverse economic events. As detailed in my August 2013 Report, the professional literature is clear on this point:

"Within any given economic environment, additional factors will play a role in determining loss experience. Underwriting is one of the more influential factors. Conservative and diligent underwriting provides the best defense against future economic uncertainty. Loans underwritten to less stringent standards are more vulnerable to losses."

"The Default and Loss Experience of Nonagency MBS," by Thomas Gillis, chapter 12, in *The Handbook of Nonagency Mortgage-Backed Securities*, 2nd edition, edited by Frank J. Fabozzi, Chuck Ramsey, Michael Marz, 2000, p. 188.

77. Dr. Torous denies this fundamental fact in order to argue that macroeconomic factors rather than abandoned underwriting guidelines were the cause of MBS losses.²¹ As noted above, and as even Dr. Torous' cited authors acknowledge, Dr. Torous' view is inconsistent with the dominant view in the published research on the subject.

LIMITING FACTORS AND OTHER ASSUMPTIONS

78. This report is furnished solely for the purpose of court proceedings in the above named matter and may not be used or referred to for any other purpose. The analysis and opinions contained in this report are based on information available as of the date of this report. I reserve the right to supplement or amend this report, including in the event additional information becomes available.

Steven P. Feinstein, Ph.D., CFA

²¹ Torous 2013 Report, Section 6(C).

Exhibit-1

Documents and Other Information Reviewed and Relied Upon in Addition to Documents Cited in My Earlier Reports

CASE DOCUMENTS

- Expert Report of Dr. Walter N. Torous, dated 15 November 2013.
- Deposition of Walter N. Torous, Ph.D., dated 12 December 2013.

ACADEMIC AND PROFESSIONAL LITERATURE

- Cordell, Larry, Yilin Huang, and Meredith Williams, "Collateral Damage: Sizing and Assessing the Subprime CDO Crisis," *Federal Reserve Bank of Philadelphia*, May 2012.
- Foote, Christopher L., Kristopher S. Gerardi, and Paul S. Willen, "Why Did So Many People Make So Many Ex Post Bad Decisions? The Causes of the Foreclosure Crisis," *Federal Reserve Bank of Boston Public Policy Discussion Papers*, July 2012.
- Keys, Benjamin J., Tanmoy Mukherjee, Amit Seru, and Vikrant Vig, "Did Securitization Lead To Lax Screening? Evidence From Subprime Loans," *Quarterly Journal of Economics*, 2010.

DATA AND DATABASES

- Bloomberg
- Intex

OTHER

- Securities and Exchange Act of 1933.
- Any other documents and data cited in the report.

Babson College Finance Division Babson Park, MA 02457 781-239-5275 Feinstein@Babson.edu

EDUCATION

1989	YALE UNIVERSITY Ph.D. in Economics (Concentration in Finance)
1986	YALE UNIVERSITY M.Phil. in Economics
1983	YALE UNIVERSITY M.A. in Economics
1981	POMONA COLLEGE B.A. in Economics (Phi Beta Kappa, <i>cum laude</i>)

TEACHING EXPERIENCE

1996 - present	BABSON COLLEGE
	Babson Park, MA
	Full-time Faculty, Finance Division
	Associate Professor (2000-present)
	Donald P. Babson Chair in Applied Investments (2002-2010)
	Faculty Director of the Babson College Fund (2002-2009)
	Director of the Stephen D. Cutler Investment Management Center (2002-2007)
	Assistant Professor (1996-2000)
1990 - 1995	BOSTON UNIVERSITY SCHOOL OF MANAGEMENT
	Boston, MA
	Full-time Faculty, Department of Finance
1993 - 1994	WASHINGTON UNIVERSITY, OLIN SCHOOL OF BUSINESS
	St. Louis, MO
	Visiting Assistant Professor, Department of Finance

BUSINESS EXPERIENCE

2008 - present CROWNINSHIELD FINANCIAL RESEARCH, INC.

Wellesley, MA

President and Senior Expert

1996 - 2008 THE MICHEL-SHAKED GROUP

Boston, MA

Senior Expert (2001 - 2008) Affiliated Expert (1996 - 2001)

1987 - 1990 FEDERAL RESERVE BANK OF ATLANTA

Economist

PROFESSIONAL DESIGNATIONS

1998 Awarded the Chartered Financial Analyst designation by the Association for Investment Management and Research.

RESEARCH AWARDS

1999 Greater Boston Real Estate Board/Real Estate Finance Association – Research Grant and Featured Speaker at Real Estate Finance Association Meetings.

PAPERS AND PUBLICATIONS

"Underestimation of Securities Fraud Aggregate Damages Due to Inter-Fund Trades." (with Gang Hu, Mark Marcus, and Zann Ali) *Journal of Forensic Economics*, September 2013, Vol. 24, No. 2, 161-173.

"Lehman Equity Research Tipping: Evidence in the Stock Price Data," Working paper, March 2010. Cited in *New York Times* May 19, 2012, and made available on the *New York Times* website.

"Distortion in Corporate Valuation: Implications of Capital Structure Changes" (with Allen Michel and Jacob Oded) *Managerial Finance*, 2011, Vol. 37(8), 681-696.

"Market Signals of Investment Unsuitability" (with Alexander Liss and Steven Achatz) Law360.com, June 3, 2010. Available from http://www.law360.com/articles/170690.

"Planning Capital Expenditure," in *The Portable MBA in Financing and Accounting*, J. L. Livingstone and T. Grossman, editors, New York: Wiley, 3rd edition 2001, and 4th edition 2009.

"Financial Management of Risks," in *The Portable MBA in Financing and Accounting*, J. L. Livingstone and T. Grossman, editors, New York: Wiley, 2nd edition 1997, 3rd edition 2001, and 4th edition 2009.

"Fraud-on-the-Market Theory: Is a Market Efficient?" (with Allen Michel and Israel Shaked) *American Bankruptcy Institute Journal*, May 2005.

"Valuation of Credit Guarantees" (with Allen J. Michel and Israel Shaked). *Journal of Forensic Economics* 17(1), pp. 17-37, 2005.

"A Better Understanding of why NPV Undervalues Managerial Flexibility," (with Diane Lander) in *The Engineering Economist*, 2002, Volume 47, Number 4.

"Teaching the Strong-Form Efficient Market Hypothesis: A Classroom Experiment," *Journal of Financial Education*, fall 2000.

A Future for Real Estate Futures: Potential Applications of Derivatives in Real Estate Investment and Finance (with Linda Stoller). Monograph. Boston: Real Estate Finance Association / Greater Boston Real Estate Board, May 2000.

"The Risk Budget: Using Your Human Resources," (with John Marthinsen and John Edmunds) *Risk Management*, April 2000.

"Scenario Learning: A Powerful Tool for the 21st Century Planner," (with Jeffrey Ellis and Dennis Stearns) *The Journal of Financial Planning*, April 2000.

"Protecting Future Product Liability Claimants in the Case of Bankruptcy," (with Allen Michel and Israel Shaked) *American Bankruptcy Institute Journal*, January 2000.

"Measuring Risk with the Bodie Put When Stocks Exhibit Mean Reversion," *The Journal of Risk*, Vol. 1, No. 3, 1999.

"Just-in-Time Mathematics: Integrating the Teaching of Finance Theory and Mathematics," (with Gordon Prichett) *Primus*, Vol. IX, No. 2, June 1999.

Atlanta Park Medical Center v. Hamlin Asset Management. (with Natalie Taylor). Babson Case Collection, Harvard Business School Press, 1998.

"Dealing with Delta," *Derivatives Week*, VII, No. 44, November 2, 1998.

"Expected Return in Option Pricing: A Non-Mathematical Explanation," *Derivatives Week*, VII, No. 35, August 31, 1998.

"When Hedges Fail: The Put Paradox and its Solution," *Derivatives Quarterly*, Vol. 4, No. 2, Winter 1997.

Finance and Accounting for Project Management. New York: American Management Association, 1996.

"International Investing," in *Irwin's Directory of Emerging Market Brokerages*. New York: Irwin, 1996.

"The Hull and White Implied Volatility." Boston University Working Paper #92-51, 1992.

"Immunizing Against Interest Rate Risk Using the Macaulay Duration Statistic: An Assessment," (with Don Smith) in *Financial Systems and Risk Management*, the proceedings of the US-Japan Forum on Financial Strategy in the 1990s, sponsored by Osaka Foundation of International Exchange and Boston University, August 1991.

"Covered Call Options: A Proposal to Ease LDC Debt," (with Peter Abken) *Federal Reserve Bank of Atlanta Economic Review*, March/April 1990. Reprinted in *Financial Derivatives: New Instruments and Their Uses*. Atlanta: Federal Reserve Bank.

"Forecasting Stock-Market Volatility Using Options on Index Futures," *Federal Reserve Bank of Atlanta Economic Review*, May/June 1989. Reprinted in *Financial Derivatives: New Instruments and Their Uses*. Atlanta: Federal Reserve Bank.

"The Black-Scholes Formula is Nearly Linear in Sigma for At-the-Money Options; Therefore Implied Volatilities from At-the-Money Options are Virtually Unbiased." Federal Reserve Bank of Atlanta Working Paper #88-9, December 1988.

"The Effect of the 'Triple Witching Hour' on Stock Market Volatility," (with William Goetzmann) *Federal Reserve Bank of Atlanta Economic Review*, September/October 1988. Reprinted in *Financial Derivatives: New Instruments and Their Uses*. Atlanta: Federal Reserve Bank.

"Stock Market Volatility," Federal Reserve Bank of Atlanta Economic Review, November/December 1987.

Book review of *In Who's Interest: International Banking and American Foreign Policy*, by Benjamin J. Cohen, Yale University Press, in *Federal Reserve Bank Of Atlanta Economic Review*, Summer 1987.

PRESENTATIONS

- "Determining the Defendant's Ability to Pay," at Taxpayers Against Fraud Education Fund Conference, October 2010.
- "The Computation of Damages in Securities Fraud Cases," at the Grant and Eisenhofer Institutional Investor Conference, December 2002.
- "The Role of the Financial Expert in Complex Litigation," at the Financial Management Association Conference, October 2000.
- "Entrepreneurial Incentives and Resource Allocation Among Corporate Venturing Initiatives," (with Joel Shulman and U. Srinivasa Rangan), Babson Entrepreneurship Research Conference, May 2000.
- "Application of Real Options in Purchasing Strategies," (with Juan Orozco), presented at the International Applied Business Research Conference, March 2000.
- "A Future for Real Estate Futures," (with Linda Stoller) at the Fairfield County chapter of the Real Estate Finance Association, November 1999, and at the Greater Boston Real Estate Board, November 2000.
- "Atlanta Park Medical Center v. Hamlin Asset Management," (with Natalie Taylor) at the 1999 convention of the North American Case Research Association.
- "Using Future WorldsTM in the Financial Planning Process," (with Jeffrey Ellis) at the Institute of Certified Financial Planners Masters Retreat, October 1999.
- "Toward a Better Understanding of Real Options: A Weighted Average Discount Rate Approach," at the 1999 Financial Management Association Conference, the 1999 European Financial Management Association Conference, and the 1999 Multinational Finance Society Conference.
- "Just-In-Time Mathematics: Integrating the Teaching of Finance Theory and Mathematics," (with Gordon Prichett) at the 1999 Financial Management Association Conference.
- "Alternative Dow Investments for the Individual Investor: Diamonds, Synthetics, and the Real Thing," at the 1999 Academy of Financial Services Convention.
- "Evidence of Yield Burning in Municipal Refundings" at Financial Management Association Convention, October 1997; Government Finance Officers Association, 1997; and Northeast Regional Convention of the National Association of State Treasurers, 1997.

"Teaching the Strong-Form Efficient Market Hypothesis" at Conference on Classroom Experiments in the Teaching of Economics at University of Virginia, September 1995.

"Efficient Consolidation of Implied Standard Deviations," (with Shaikh Hamid) at Midwest Finance Association, March 1995.

"A Test of Intertemporal Averaging of Implied Volatilities," (with Shaikh Hamid) at Eastern Finance Association, April 1995.

"Taking Advantage of Volatility: Non-linear Forecasting and Options Strategies," (with Hassan Ahmed) at Chicago Board of Trade / Chicago Board Options Exchange Conference on Risk Management, February 1992.

"Immunizing Against Interest Rate Risk Using the Macaulay Duration Statistic: An Assessment," (with Don Smith) at Japan-U.S. Conference on Financial Strategies in the 1990s, Osaka, Japan, August 1991.

"The Hull and White Implied Volatility," at American Finance Association Convention, December 1990.

REVIEWED ARTICLES AND BOOKS FOR:

Harvard Business School Publishing Elsevier Journal of Economic Education

Journal of Forensic Economics

Journal of Risk

Financial Review

North American Case Research Association

Financial Management

Journal of Business

Journal of Money, Credit and Banking

Quarterly Review of Economics and Finance

Blackwell

Prentice Hall

Southwestern Publishing

COURSES TAUGHT

Capital Markets

Mod B: Decision Making and Applications, Finance stream (MBA)

Financial Reporting and Corporate Finance (MBA)

Valuation (MBA)

Investments (MBA and Executive)

Equity Markets (MBA)

Fixed Income Analysis (Undergraduate and MBA)

Babson College Fund (Undergraduate and MBA)

Options and Futures (Undergraduate)

Advanced Derivative Securities (MBA)

Corporate Finance (MBA and Executive)

Financial Management (MBA)

Risk Management (MBA)

Corporate Financial Strategy (MBA)

Integrated Management (Undergraduate)

Cross-Functional Management (Integrated curriculum, Undergraduate)

Continuous-Time Finance (Doctoral)

Portfolio Theory / Management Information Systems (Executive)

Quantitative Methods for Investment Management (Undergraduate and MBA)

Introduction to Derivative Securities (Executive)

International Finance (Executive)

TEACHING AWARDS

Reid Teaching Award, Washington University, Olin School of Business, 1993-94.

SELECT LIST OF MEDIA CITATIONS

"Is Insider Trading Part of the Fabric?" by Gretchen Morgenson, *The New York Times*, May 19, 2012.

"Bankers Rigging Municipal Contract Bids Admit to Cover-Up Lies," by William Selway and Martin Z. Braun, *Bloomberg Markets Magazine*, November 24, 2010.

"Hospital Move Presents Buy-Out Groups with New Risks," by Francesco Guerra, Christopher Bowe, and Rebecca Knight, *Financial Times*, July 15, 2006.

"Funds of Knowledge Add Value," by Rebecca Knight, *Financial Times*, March 12, 2006.

- "City's Financial Picture Worse Than Ever, Sanders Says," by Matthew T. Hall, *San Diego Union-Tribune*, January 7, 2006.
- "Downer: Stock Market Takes Another Dive," by John Chesto, *Boston Herald*, July 23, 2002.
- "Banks, Developers, Are Main Beneficiaries," [editorial column] by Steven Feinstein, *The Boston Globe*, March 31, 2002, p. C4.
- "Washington Investing: What Michael Saylor is Really Worth," by Jerry Knight, *The Washington Post*, March 6, 2000.
- "IBM Retools Pensions," by Stephanie Armour, USA Today, May 4, 1999.
- "L.A. MTA's Law Firm Says Lissack Strategy Will be a Replay," by Andrea Figler, *Bond Buyer*, September 30, 1998.
- "Fed Key Player in Rescue of Floundering Hedge Fund," by Andrew Fraser, Associated Press, September 25, 1998.
- "Top Banks Plan Bailout for Fund," by Andrew Fraser, Associated Press, September 24, 1998.
- "Clarion Call to the Small Investor," by Jo-Ann Johnston, *The Boston Globe*, March 4, 1998.
- "L.A. Authority Study Shows Rampant Yield Burning Abuse," by Michael Stanton, *The Bond Buyer*, April 22, 1997.
- "Dispute Over Yield Burning Dominates GFOA Session," by Michael Stanton, *The Bond Buyer*, January 29, 1997.
- "Men Behaving Badly (Yield Burning)," *Grants Municipal Bond Observer*, January 24, 1997.
- "Municipal Bond Dealers Face Scrutiny," by Peter Truell, *The New York Times*, December 17, 1996.
- "Iowa Market Takes Stock of Presidential Candidates," by Stanley W. Angrist, *The Wall Street Journal*, August 28, 1995.
- "Looking for Clues in Options Prices," by Sylvia Nasar, *The New York Times*, July 18, 1991.

"For Fed, A New Set of Tea Leaves," by Sylvia Nasar, *The New York Times*, July 5, 1991.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Finance Association
Boston Security Analysts Society
Chartered Financial Analyst Institute
Financial Management Association
Foundation for Advancement of Research in Financial Economics (founding member)
National Association of Forensic Economics
North American Case Research Association

Exhibit-3 Steven P. Feinstein, Ph.D., CFA Testimony Provided Since my August 2013 MBS Report

In Re IndyMac Mortgage-Backed Securities Litigation Civil Action No. 1:09-cv-04583-LAK United States District Court Southern District of New York Deposition Testimony January 2011 and October 2013

Louis Pagnotti, Inc. et al., vs. Deloitte & Touche, LLP, In the Court of Common Pleas of Luzerne County Case No. 557 C of 2003
Deposition Testimony
October 2013

Christopher Cohan and Angelina Cohan vs. KPMG LLP State Court for the County of Fulton State of Georgia Civil Action No. 12EV0114325G Deposition Testimony June 2013 and January 2014